PANHANDLE UNIT
Restoration Projects
Environmental Assessment
EA Number Or-035-01-08

BLM OFFICE: Baker Field Office, Vale District
PROPOSED ACTION: The proposed project is to implement restoration activities on approximately 3,100 acres of BLM administered lands. These treatment activities will occur on portions of 8 grazing allotments within the Baker Resource Area, Vale District: These projects include: Prescribed Burn, Herbicide Treatment, Seeding and fencing in Dry Gulch; Squaw Creek; Timber Canyon; Immigrant Gulch; Park Creek; Foster Gulch; Road Gulch; and Pine Creek Allotments.

LOCATION OF PROPOSED ACTION: T9S, R45E, Sec.5, 7, 8; T10S, R45E, Sec. 2,11,14; T9S, T10S R45E, Sec. 4,5,8,9,27, 28, 29, 32, 33, 34; T9S, R46E, Sec.7, 8, 17, 18, 19, 20; T8S, R46E, Sec. 19,30; T8S, R47E Sec. 18, 19, 28, 29, 30. See maps attached.

CONFORMANCE WITH APPLICABLE LAND USE PLAN

This proposed action is subject to the following land use plans:

Name of Plan: Ironside Rangeland Program Summary (RPS)(1981)
Baker Resource Management Plan (RMP) (1989)
Allotment Evaluation for the Squaw Creek, Timber Canyon (1997),
Dry Gulch Allotment (1998)

These plans have been reviewed to determine if the proposed actions conform with the land use plans' terms and conditions as required by 43 CFR 1610.5

REMARKS

These projects are in conformance with the RMP and RPS and several projects were specifically identified as a management action to be implemented in the following allotment evaluations: Dry Gulch, Squaw Creek, Timber Canyon Allotments.

NEED FOR THE PROPOSED ACTION

The need for the proposed actions are to convert or restore a highly flammable, early seral annual rangeland to a desirable perennial grass, forb and shrub rangeland. Cheatgrass/medusa head ranges effectively out compete native vegetation when cover of these species has been reduced.
Cheatgrass and medusa heads' rapid growth and its ability to utilize most of the available upper soil moisture enables it to exclude seedlings of other species. They can dominate a site the second year after wildfire and can retain its position within the plant community for 4 to 5 decades (Daubenmire 1975).

The purpose of the burn and herbicide treatments would be to reduce the accumulation of annual plant material and decrease the seed bank of annual species to allow the establishment of shrubs and perennial grass and forb species additionally, these treatments will reduce the risk of noxious weed invasion on these sites.

The specific objectives of the proposed action would be to reduce annual grasses and forbs and establish perennial shrub and herbaceous ground cover. The proposed action would replace the existing annual vegetation with desirable perennial grasses, forbs and shrubs. The projects occur within several of the highest priority areas within the Baker Resource Area for watershed enhancement, native range improvement, and restoration of habitat for wildlife.

In addition, the establishment of perennial grasses, forbs and shrubs would reduce fire frequency of the area and associated suppression costs. Cheatgrass and medusa head remain a hazard longer than that of perennial grasses because they dry 4 to 6 week earlier than perennials and are susceptible to fire 1 to 2 months longer in the fall (Stewart and Hull 1949). In Oregon, cheatgrass ranges were found to be 500 times more likely to burn than non-cheatgrass ranges. Cheatgrass fires spread very rapidly and may extend into nearby stands of native vegetation reducing the cover of native perennial grass, forb and shrub species.

AFFECTED ENVIRONMENT

The project areas are generally large benches or broad flats which have been converted almost entirely to annual and undesirable perennial vegetation dominated by rabbit brush, cheatgrass, and medusa head rye.

The size and location of each project area may vary according to actual fireline locations that will be identified by the interdisciplinary team when they visit each project site.

Wildlife species present in the area include mule deer, elk, chukar, coyote, badger, raptors, long billed curlews and neo tropical songbirds. Due to the present lack of perennial vegetation and structural diversity, the areas are low in wildlife diversity.

Soils are fine textured, formed from tuffaceous material and have been identified as fine, montmorilonitic, mesic Aridic, Argizerolls. These soils are shallow to semi deep, with some areas free of rock and have good potential for range seeding.

Some project area's are within a visual resource management (VRM) class II and (VRM) class IV..

A reconnaissance level cultural resource inventory was conducted in the Dry Gulch project area and no cultural resources were found. Partial or spot inventories have been conducted in the Immigrant Gulch, Pine Valley, Timber Canyon, and Squaw Creek project areas where several archaeological sites were previously recorded. These sites will be avoided by any ground disturbance associated with prescribed burning or seeding. No historic structures have been identified within project areas. Ground disturbance will be avoided for all previously recorded and any newly identified archaeological sites.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES A, B and C

Proposed Action

The proposed action is to conduct several prescribed burns covering approximately 3,100 acres followed by herbicide and seeding treatments. The attached maps shows the location of the project areas. The prescribed burns would be conducted during the fall (however, if weather conditions permit, a spring burn may also be used) with the herbicide treatment conducted the following spring. The areas would be seeded during the fall, following the herbicide treatment. Following the prescribed burn, herbicide application and seeding, the area would be closed from livestock grazing for a minimum of three to five growing seasons by fencing, resting or deferring use. The burn area in the Dry Gulch and Immigrant Gulch project area may require incorporating private ground to achieve resource objectives (private landowners have been notified).

Fuel breaks for the prescribed burns would be established or used around the proposed project perimeter unless natural barriers exist (roads, cow trails, rocky out crops, etc.). Fuel breaks would consist of a disked or bladed strip between 8 and 10 feet in width. A complete burn (90 to 100% fuel consumption) of the proposed project area would be anticipated because of the highly flammable characteristics of cheatgrass and medusa head rye due to its complete summer drying, fine structure and its tendency to accumulate litter (Tisdale and Hironaka 1981). However, it has been reported that high fire intensity alone will not kill all cheatgrass seed (Young 1976) and seed on or in mineral soil will survive even if most of the litter is consumed.

To further suppress the annual weedy species, a herbicide treatment of Glyphosate at 16 ounces per acres would be applied at the 2-3 leaf stage during the early spring of 1999 using a 1–25 gallon sprayer mounted on all terrain vehicle (ATV's) Recent work by The Nature Conservancy (1997) and Prineville District BLM (1995) has shown that herbicide treatments following prescribed fire enhances the establishment of desirable perennial species by further reducing the seed bank and competition of annual weedy species. Glyphosate prevents the plant from producing amino acids that are the building blocks of plant proteins. (Glyphosate Herbicide Information Profile, USFS 1992 is attached as Appendix 1, and a herbicide label on Accord and material safety data sheet is attached as Appendix 2).

Following the burning and spraying treatments, the areas would be seeded with a mixture of adaptive perennial grasses, forbs and shrubs and may include the following species: sherman bluebunch wheatgrass, secar bluebunch, Idaho Fescue. Lewis flax, western yarrow, scarlet globemallow, Wyoming big sagebrush and four wing saltbush at a rate of approximately 10 pounds per acre with the final mix dependant upon seed availability. Depending upon individual species seeding requirements and topography, the seeding would be done using a rangeland drill, broadcast seeder mounted on a pickup truck and/or aerial application with a helicopter.

DESCRIPTION OF OTHER ALTERNATIVES

Alternative A. (NO ACTION) - Under this alternative, the prescribed burns and seedings would not be conducted.

Alternative B. (Disk and Seed) - Under this alternative the areas would be disc plowed with a tractor. The prescribed fire and herbicide treatments would not be used.

Alternative C. (Broadcast Seed) - Broadcast seed the areas with no treatment to the site.

ENVIRONMENTAL IMPACTS

PROPOSED ACTION:

Prescribed burning would increase the particulate matter and gasses in the atmosphere for the duration of the burn which could cause some short term temporary reduction in visibility. The impacts would be minor, due to the burn and the only fuel source being fine fuels of annual grasses. Burning would not be expected to require more than one or two burning periods. The spraying and seeding operation would not have a long term effect on the air quality.

The loss of vegetation and vegetative matter in the surface horizon would subject the soils to wind and water erosion. Burning with insufficient soil moisture could cause the loss of some soil micro-organisms, vegetative matter, soil nutrients and some remnant desirable grass and shrub species. The greatest impacts to soils are from the removal of vegetation and the resultant wind and water erosion. Impacts to the soil resources are expected to be the greatest after the first year of burning and the smallest from the second year after herbicide application. Moderate soil impacts would be expected during the drilling phase of the project. However, the effects are not expected to be significant because of minimal slopes and relatively low precipitation within the project area. In addition, wind and water erosion rates will decrease after the seeding becomes established.

Prescribed burning and subsequent seeding would be short term and would not significantly affect the VRM Class II or Class IV rating which currently exists for these areas.

It has been reported by Torrel et al (1961) that fire enhances the effectiveness of herbicide treatments within medusa head rye stands by removing some of the plant litter, destroying some of the seed, and placing the remaining seed in contact with mineral soil where it can germinate and subsequently be controlled by herbicides. Vale District's 5 year Integrated Weed Control Program and Environmental Assessment No. OR-030-89-19, tiered to the Northwest Area Noxious Weed Control Program Environmental Impact Statement (December 1985) and Supplement (March 1987) addresses the environmental and human impacts of the proposed herbicide treatment. There would be no changes in the implementation of the this programmatic EA in regards to the proposed action. The use of Glyphosate at 16 fl oz./ac. should not adversely impact remnant perennial grasses and shrubs. These areas will be monitored.

Using prescribed fire as a partial control measure for annual species would not cause great changes in surface soil physical and chemical properties because of the low fuel loading (1 hr fuels) and rapid rates of spread. The greatest effect would be the short term loss of soil productivity due to a temporary change in vegetative cover, surface organic matter and soil organisms in the upper few inches of the surface. Soil surface characteristics should return to prefire conditions after 3 growing seasons. The impact of rangeland drilling equipment would loosen and displace the top 2 to 3 inches of the soil within the furrows which are 12 inches apart. This would be temporary, however, as the new plants would begin to stabilize the soil within the first year of drilling.

It is anticipated that the prescribe fires will burn approximately 90 to 100 percent of the area in question. The impact on wildlife is primarily a result of habitat modification; however, this impact will be minor as the proposed burn area are currently utilized by big game species to a significant degree during the winter and spring time. The proposed action would benefit wildlife by providing structural diversity and improving forage conditions. The proposed burn area has very little shrub component and is not considered to be sage grouse habitat. The proposed action will have no adverse impacts on sage grouse. Small mammal, reptile and bird populations should not be negatively impacted because there is not significant structure and diversity in the existing community. A short term loss of cover and forage could result from the burn. In the long term, habitat quality and quantity should increase with the increase in perennial forbs, shrubs and grasses.

Livestock grazing would not occur for a minimum of two growing seasons following the seeding. Implementation of this project closely conforms with Rangeland Health Standards in an area that supports a highly fragmented shrub component. The proposed action would provide a more reliable forage base for livestock and wildlife, and improve vegetation diversity and ecological condition.

Cultural resource inventories will be completed prior to project implementation. Inventories will consist of survey of proposed fire lines, and complete intensive surveys of areas proposed for plowing and seeding during the year following the prescribed burns.

Low intensity prescribed burns usually fall below known thresholds for creating mechanical and chemical changes in stone artifacts. Generally accepted critical threshold temperature for stone is about 650F degrees and threshold temperature for wood is 550F degrees. Prescribed fire temperatures at ground level or below ground should be held below these threshold values when feasible (Oregon BLM-SHPO Protocol Appendix C: Prescribed Burn Project Areas). Any historic structures identified would be protected from prescribed burn activities.

Inventories will be completed on a phased schedule as projects are implemented. Fire lines would be surveyed prior to proposed burn plan completion. Post-fire inventories would be conducted prior to blading or plowing for rehabilitation seeding. Newly identified sites would be flagged for avoidance by any ground disturbing activities. Post fire monitoring will be implemented due to increased visibility of sites. By implementing avoidance and monitoring stipulations, the project should have no effect on any sites on or eligible for the National Register of Historic Places.

Alternative A. (NO ACTION) - The vegetation condition of the area would continue to be the same as the present. Cheatgrass and other weedy annual species would continue to increase and occupy the site and provide a seed source into surrounding areas. Productivity on the site has declined to the degree that no action is uneconomical over the long term. Little or no potential for site improvement is possible with no action. The potential for reoccurring wildland fires would continue to exist throughout the project area.

Alternative B. (Disc Plowing and Seeding) - Disc plowing would unsure the seed would be placed below the soil surface, which should increase sprouting of the seed the next spring. Breaking up of soils and removing vegetation cover by this method would increase the potential for minor soil loss and some sediment runoff. Disc plowing costs about $10.00 per acre more than burning and applying a herbicide treatment.

Alternative C. (Broadcast Seeding) - Seeding over the area without no removal of annual vegetation or litter layer. This procedure would have very little or no chance of success. This is due to the inability of the seed to reach the soil surface for gemination.

The following resources were all considered in preparation of this EA, and are either not present or would not be affected by the proposed action or alternatives:

CRITICAL ELEMENTS	AFFECTED	
	YES	NO
ACEC		X
CULTURAL RESOURCES		X
FARMLANDS, PRIME/UNIQUE		X
FLOODPLAIN		X
NAT. AMER. REL. CONCERNS		X
T&E SPECIES		X
WASTES, HAZARDOUS/SOLID		X
WATER QUALITY		X
WETLANDS/RIPARIAN ZONES		X
WILD AND SCENIC RIVERS		X
WILDERNESS		X
ENVIRONMENTAL JUSTICE		X

DESCRIPTION OF MITIGATION MEASURES AND RESIDUAL IMPACTS

To ensure firefighter safety, prescribed burn plan prescriptions and fireline safety procedures will be strictly followed at all times.

The design features and mitigation measures for herbicide application as described in the EA (OR-030-89-19 as amended in 1994) titled “The Vale District’s 5 Year Noxious Weed Control Program” will be strictly followed. All herbicides will be applied in accordance with EPA label requirements.

Cultural resource inventories will be completed prior to project implementation. Fire lines will be surveyed when these locations are identified and a reconnaissance for historic features will be completed (Oregon BLM-SHPO Protocol Appendix C: Prescribed Burn Project Areas). Post fire monitoring and intensive inventories will be conducted prior to plowing and rehabilitation seeding. Sites identified will be excluded from ground disturbing activities.

Monitoring pretreatment and post-treatment will be done yearly within the project area.

LITERATURE CITED

Daubenmire, R.F. 1975. Plant Succession on Abandoned Fields, and Fire Influences, in a Steppe Area in Southeastern Washington. Northwest Science. 49(1): 36-48.

Stewart, G. and A.C. Hull. 1949. Cheatgrass (Bromus Tectorum) - An Ecological Intruder in Southern Idaho. Ecology. 30 (1): 58-74.

Torrel et al. 1961. The Medusa head Rye Problem in Idaho. Weeds. 9:124-131.

Tisdale, E.W. and M. Hironaka. 1981. The Sagebrush-Grass Region. A Review of the Ecological Literature. Bull. 33. Moscow, Idaho. U of I, Forest and Wildlife and Range Expt. Station. 31pp.

USDI-BLM. 1995. Prineville District. Murderer's Creek Medusa head Rye Control (Wilderness Portion) E A. No. OR-054-4-83.

Young, J.A. 1976. Estimating Potential Downy Brome Competition after Wildfires. JRM. 29(4): 322-325.

PERSONS/AGENCIES CONSULTED

Livestock Permittees

INTERDISCIPLINARY ANALYSIS Identify those team members conducting or participating in the NEPA analysis and preparation of this worksheet.

Name	Signature/Date	Title
Rubel Vigil	_____	Supervisory Natural Resource Specialist
Greg Miller	_____	Wildlife Biologist
Clair Button	_____	Botanist
Jackie Dougan	_____	Fisheries Biologist
John Denney	_____	Soils/Water/Air Specialist
Mary Oman	_____	Archeologist
Kevin McCoy	_____	Recreation/Wilderness Specialist
Mike Woods	_____	Fire/Weeds Specialist
Steve Coley	_____	Fuels Tech
Gary Guymon	_____	Rangeland Management Specialist (Preparer)

INTERDISCIPLINARY TEAM COMMENTS (if any): Identify comments relative to the proposed action.

_____
_____
_____
_____
_____
_____
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_____

FINDING OF NO SIGNIFICANT IMPACTS

On the basis of the information contained in this EA (OR-035-01-000), it is my determination that the proposed alternative and potential environmental and human consequences and mitigation measures does not constitute a major Federal action affecting the quality of the environment. Therefore, an EIS is not necessary and will not be prepared. I have determined that the proposed action is in conformance with the District's land use plan.

_____ _____

Penny Dunn Woods Date
Field Manager
Baker Field Office

Notice of Decision
Panhandle Restoration Unit
Environmental Assessment (OR-035-01-08)
United States Department of the Interior
Bureau of Land Management
Baker Resource Area
3165 10th Street, Baker City, Oregon 97814

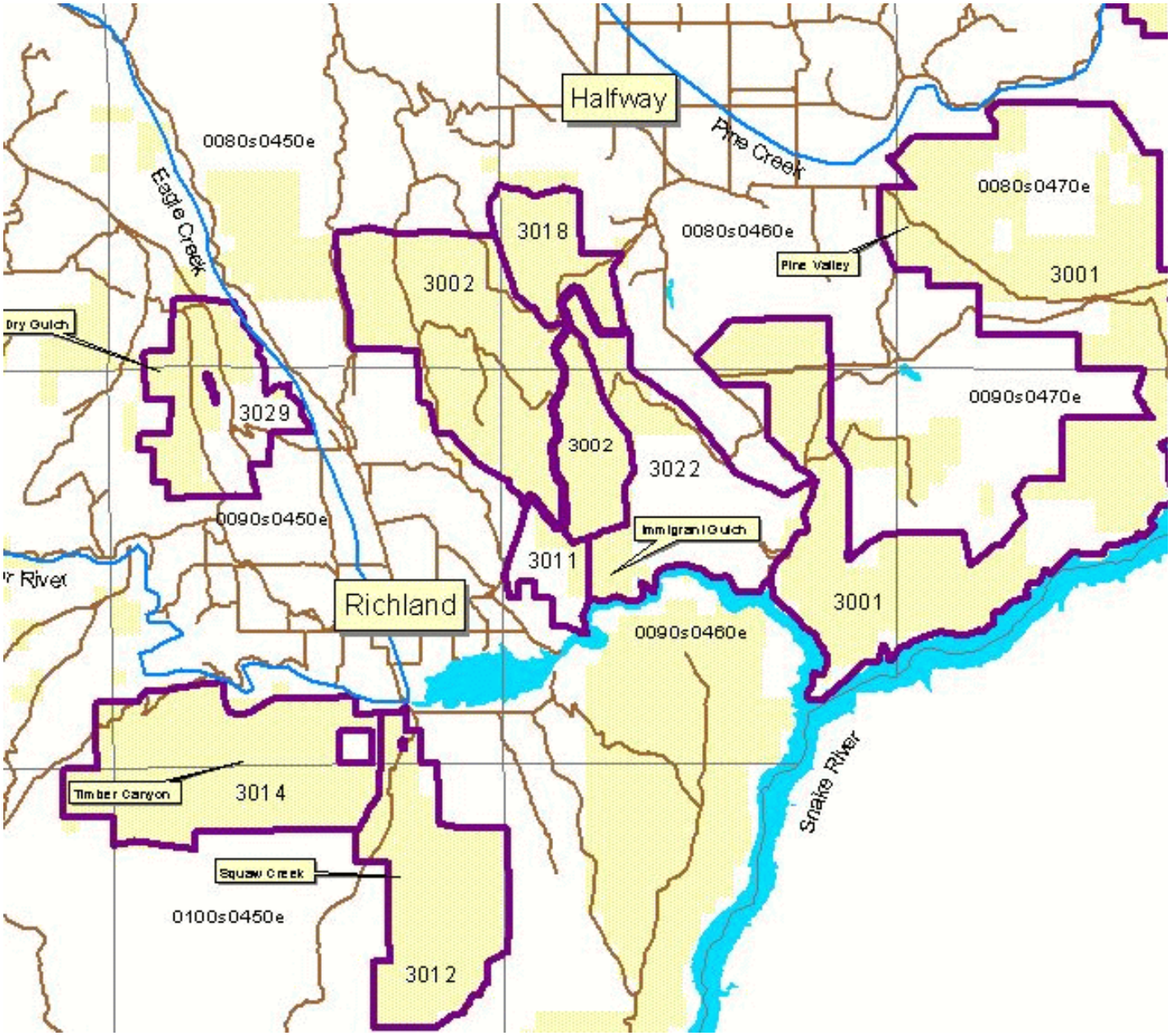
Notice is hereby given that on July 23, 2001, Penny Dunn Woods, Baker Resource Area Field Manager, Bureau of Land Management, issued a decision to authorize the implementation of the Panhandle Unit Restoration Project. The proposed project is to implement restoration activities on approximately 3,100 acres of BLM administered lands. These treatment activities will occur on portions of 8 grazing allotments within the Baker Resource Area, Vale District.

These projects include: Prescribed Burning, Herbicide Treatment, Seeding and protective fencing in the Dry Gulch; Squaw Creek; Timber Canyon; Immigrant Gulch; Park Creek; Foster Gulch; Road Gulch; and Pine Creek Allotments. This decision authorizes the implementation to convert or restore a highly flammable, early seral annual rangeland to a desirable perennial grass, forb and shrub rangeland. Cheatgrass/medusahead ranges effectively out compete native vegetation when cover of these native species has been reduced. The purpose of the burn and herbicide treatments would be to reduce the accumulation of annual plant material and decrease the seed bank of annual species to allow the establishment of shrubs and perennial grass and forb species additionally, these treatments will reduce the risk of noxious weed invasion on these sites. Measures to mitigate restoration project will be implemented as identified in the Panhandle Unit Restoration Project EA (OR-035-01–08). Implementation of this project may start as soon as the fall of 2001

This project is consistent with the BLM's 1989 Baker Resource management Plan and the Vale District Fire Management Activity Plan (1998). The locations of the prescribed fire projects are as follows: T9S, R45E, Sec.5, 7, 8; T10S, R45E, Sec.2,11,14; T9S, T10S R45E, Sec.4,5,8,9,27, 28, 29, 32, 33, 34; T9S, R46E, Sec.7, 8, 17, 18, 19, 20; T8S, R46E, Sec.19,30; T8S, R47E Sec.18,19, 28, 29, 30. A copy of the Decision Record may be obtained by writing to the Baker Resource Area, Bureau of Land Management, 3165 10th Street, Baker City, Oregon 97814 or by calling (541) 523-1432. It can also be viewed on the BLM Vale District website at www.or.blm.gov/Vale.

For a period of 30 days from the date of publication of this notice in the Baker City Herald, this decision shall be subject to protest and/or appeal according to (43 CFR Part 4). Interested parties may protest this decision by providing written comment or objections to the Baker Resource Area Field Manager, at the above Baker City address. Protest/appeals must be filed within 30 day time period to be considered.

Dated: July 23, 2001__ Baker Resource Area Field Manager:_Penelope Dunn Woods_____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Immigrant Gulch
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Richland
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Timber Canyon
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